



Hydromodification Control & Low Impact Development Implementation Charette Materials

SUMMARY SCOPE OF WORK

FOR

JOINT EFFORT PROJECT

To Develop and Implement Hydromodification Control Criteria Methodology For the Central Coast Region and Other California Municipalities

**Central Coast Regional Water Quality Control Board
June 26, 2009**

The Joint Effort Project will include a review of, and build on, work already done by some municipalities, such as City of Santa Maria, Contra Costa County, and San Diego County. Water Board staff are key stakeholders in the process, so the methodology will be consistent with the Water Board's expectations. The Contractor and municipalities will derive local hydromodification criteria from local climatic and landscape conditions, including field verification. This effort, which will be applied to 30-60 municipalities within Region 3, will provide the critical tool (i.e., hydromodification control methodology) and conduct the basic analysis needed to develop clear, science-based stormwater control criteria. This is not a study or research exercise but the actual nuts-and-bolts tasks needed to move municipalities toward improved stormwater management. More specific examples of these tasks are included in Table 1, below.

Specific deliverables resulting from the \$600,000 effort will benefit both regional and state stormwater programs and include:

Regional Scale: Hydromodification control methodology and preliminary engineering analysis for 30-60 municipalities in Region 3. This product will assist the Region 3 Phase II municipalities to incorporate hydromodification criteria into their stormwater management plans and to utilize LID design principles to achieve those criteria.

Statewide Scale: Development guidelines that will assist State and Regional Boards in directing municipalities how to successfully develop scientifically sound and understandable hydromodification criteria.

Statewide Scale: A white paper report providing the foundation for the development of cap-and-trade tools necessary to evaluate the impact of hydromodification management controls to achieve real, quantifiable, and cost-effective environmental benefits (e.g., improved surface water quality, water supply replenishment, and reductions of greenhouse gases).

Budget Requirements and Funding Sources

The estimated total cost of to develop the Hydromodification Control Criteria is between \$1.5 and \$2 million. This proposal would provide \$600,000 of that total amount. The Central Coast Water Board is seeking additional funding including Central Coast Water Board Settlement Funds, Proposition 84 Stormwater Funds, American Recovery and Reinvestment Act (ARRA) dollars, and direct contribution from participating municipalities. Lastly, an additional resource to contribute to this effort may exist in the Central Coast Low Impact Development (CCLID)

Center, which was established by the Central Coast Water Board in 2008 to provide services within Region 3 including hydromodification support. However, if additional funding beyond this proposal is not obtained, the work done under this proposal will provide a vital foundation for municipalities to do the remaining work on their own or in collaboration to comply with the Central Coast Water Board's hydromodification requirements.

Specific Tasks, Budget, and Schedule

The Contractor will use the CAA funds to do the following tasks of the Phase II hydromodification effort:

Table 1: Breakdown of Tasks, Cost, and Schedule for the \$600,000 CAA Budget Request.

Task	Title	Description	Cost	Time
1	Statement of Problem and Objectives	<ul style="list-style-type: none"> Characterize the problem of “hydromodification” to encompass the downstream impacts of urbanization, including impaired water quality, channel instability, and altered water budgets. Layout objectives of the project, focusing on data reduction techniques, assessment methods, and providing municipal hydromodification control implementation strategies. 	\$40K	100 days
2	Data Availability, Literature Review, and creation of the Hydromodification Control Methodology	<ul style="list-style-type: none"> Assessment of local climate and landscape conditions. Review and obtain most useful products of existing studies. Define Hydromodification Control Criteria development methodology (i.e. the engineering and geomorphologic “recipe” municipalities will use to develop their numeric hydromodification control criteria). 	\$60K	130 days
3	Region-wide Watershed Characterization for Hydromodification Control	<ul style="list-style-type: none"> Gather watershed data, including meteorological data, channel characteristics, special species, fish use, land use, impervious areas, land use, soil types, slope, water quality, and groundwater conditions. Collect field data to fill gaps. Identify and classify representative subwatershed areas with similar characteristics (a.k.a. hydrologic response units [HRUs]). Identify and classify representative receiving waterbodies with similar biological and physical characteristics. 	\$500K	340 days